Strategy for Emergency Groundwater Sampling
Hunters Point Shipyard, Parcel E Landfill

The Navy used more than 500,000 gallons of fresh water to extinguish the brush fire near the landfill area (8/16/00). It is expected that most of this water percolated through Parcel E to the shallow aquifer (A-aquifer) creating a hydrologic "mound" approximately 800 feet long by 300 feet wide.

Presently, the outflow from this mound is occurring radially with predominant directions towards the Bay (south direction) and semi-parallel to the Bay (south-eastern direction). Downward movement of groundwater to the deeper aquifer is also possible due to the increased vertical gradient, however, the vertical component of the outflow from the mound might be negligible compared with the lateral outflow due to the low permeability of the layer separating A-aquifer and underlying B-aquifer.

Because of the potential mobilization of contaminants that may be present in the in the landfill vadose zone and their subsequent lateral migration, it is prudent to (1) conduct water level measurements, and (2) sample the existing wells for contaminants of potential concern.

Water level measurements are necessary to determine the groundwater flow directions and rates and subsequently to establish the sampling frequency of wells.

Th Navy will collect water level measurements from monitoring wells in both the A-aquifer and B-aquifer. Measurements in B-aquifer wells will help evaluate if there is a significant hydraulic connection between the two aquifers. The list of wells proposed for the first round of measurement is as follows:

A-aquifer IR01MW16A, IR01MW07A, IR01MW18A, IR01MW38A, IR01MWI-5, IR01MWI-3, IR01MW43A, IR01MW42A, IR01MW366A, IR01MWI-2, IR01MW367A, IR04MW36A, IR04MW31A, IR04MW13A, IR04MW35A, IR04MW40A, and IR04MW09A.

B-aquifer IR01MW17B, IR01MW26B, IR01MW47B, and IR01MW09B.

To evaluate the potential for enhanced migration of contaminants from the groundwater mound area, the Navy will collect groundwater samples from selected monitoring wells. For the first round, the Navy proposes to collect samples for chemical analyses (VOCs, SVOCs, PAHs, metals, PCBs, pesticides, and explosives) from the following wells located along the fringes of the mound:

IR01MW18A, IR01MW26B, IR01MWI-5, IR01MW366A, IR01MWI-2, and IR01MW367A.

After the groundwater flow directions and rates are determined, the Navy will propose a revised frequency for water level measurements and chemicals of potential concern for subsequent analyses.